

**CLAIMS**

1        8. *(currently amended)* ~~An array hybridization~~ A method  
 2 comprising the steps of:  
 3        introducing sample liquid into a reaction cell having a hybridization  
 4 probe array so that some interior volume is partially occupied by  
 5 sample liquid and partially occupied by gas;  
 6        centrifuging said sample liquid by rotating said reaction cell ~~having~~  
 7 ~~a probe array~~ so that centrifugal ~~forces~~ force in excess of 1G urges said  
 8 sample liquid against said array; and  
 9        agitating said sample liquid in said reaction cell during said  
 10 centrifuging so that said sample liquid moves relative to said array.

1        9. *(currently amended)* ~~An array hybridization~~ A method as  
 2 recited in Claim 8 wherein said agitation involves rotating said ~~sample~~  
 3 reaction cell about an agitation axis that is more orthogonal to than  
 4 along said centrifugal force.

1        10. *(currently amended)* ~~An array hybridization~~ A method as  
 2 recited in Claim 9 wherein said agitating involves periodically changing  
 3 the direction of rotation about said agitation axis so as to define an  
 4 agitation cycle rate.

1        11. *(currently amended)* ~~An array hybridization~~ A method as  
 2 recited in Claim ~~11~~ 10 wherein said centrifuging involves rotating said  
 3 reaction cell at a centrifuge rate greater than said agitation rate.

1        12. *(currently amended)* ~~An array hybridization~~ A method as  
 2 recited in Claim 10 wherein said agitation involves rotating said  
 3 ~~sample reaction~~ cell about an agitation axis that extends more parallel  
 4 to than orthogonal to said centrifuge axis .

1        13. *(currently amended)* ~~An array hybridization~~ A method as  
 2 recited in Claim 12 wherein said array extends more orthogonal to said  
 3 centrifugal force than along it so that said centrifugal forces urges said  
 4 sample liquid against said array.

1        14. *(currently amended)* ~~An array hybridization~~ A method as  
2 recited in Claim 13 further comprising a step of removing sample  
3 liquid from said reaction cell, said removing step involving rotating  
4 said reaction cell by rotating it about said agitation axis so that said  
5 centrifugal force urges said fluid in said reaction cell away from said  
6 array.

1        15. *(currently amended)* ~~An array hybridization~~ A method as  
2 recited in Claim 8 wherein said sample liquid occupies at most half of  
3 said interior volume~~said reaction cell is filled at most half way with~~  
4 ~~sample liquid.~~

1        16. *(new)* A method comprising:  
2        introducing sample liquid into a reaction cell having a hybridization  
3 probe array so that some interior volume is partially occupied by  
4 sample liquid and partially occupied by gas;  
5        centrifuging said sample liquid by rotating said reaction cell so that  
6 centrifugal force urges said sample liquid against said array; and  
7        rotating said reaction cell about an agitation axis that is more  
8 orthogonal to than along said centrifugal force so that said sample  
9 liquid moves relative to said array.

1        17. *(new)* A method as recited in Claim 16 wherein said agitating  
2 involves periodically changing the direction of rotation about said  
3 agitation axis so as to define an agitation cycle rate.

1        18. *(new)* A method as recited in Claim 17 wherein said  
2 centrifuging involves rotating said reaction cell at a centrifuge rate  
3 greater than said agitation rate.

1        19. *(new)* A method as recited in Claim 18 wherein said sample  
2 liquid occupies at most half of said interior volume.

1        20. *(new)* A method comprising:  
2        introducing sample liquid into a reaction cell having a hybridization  
3        probe array so that some interior volume is partially occupied by  
4        sample liquid and partially occupied by gas;  
5        centrifuging said sample liquid by rotating said reaction cell so that  
6        centrifugal force urges said sample liquid against said array; and  
7        rotating said reaction cell about an agitation axis that is more  
8        parallel than orthogonal to said centrifugal force so that said sample  
9        liquid moves relative to said array.

1        21. *(new)* A method as recited in Claim 20 wherein said agitating  
2        involves periodically changing the direction of rotation about said  
3        agitation axis so as to define an agitation cycle rate.

1        22. *(new)* A method as recited in Claim 21 wherein said  
2        centrifuging involves rotating said reaction cell at a centrifuge rate  
3        greater than said agitation rate.

1        23. *(new)* A method as recited in Claim 20 wherein said array  
2        extends more orthogonal to said centrifugal force than along it so that  
3        said centrifugal force urges said sample liquid against said array.

1        24. *(new)* A method as recited in Claim 23 further comprising  
2        removing sample liquid from said reaction cell, said removing  
3        involving rotating said reaction cell by rotating it about said agitation  
4        axis so that said centrifugal force urges said fluid in said reaction cell  
5        away from said array.

1        25. *(new)* A method as recited in Claim 20 wherein said sample  
2        liquid occupies at most half of said interior volume.